



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,865	01/21/2004	Philip Koneda	81044248	3149

33066 7590 02/23/2005  
RICHARD M. SHARKANSKY  
PO BOX 557  
MASHPEE, MA 02649

EXAMINER

CORRIGAN, JAIME W

ART UNIT PAPER NUMBER

3748

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/761,865

Applicant(s)

KONEDA ET AL.

Examiner

Jaime W Corrigan

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6-2-045-21-0412104</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoeda et al. (PN 6,276,317).

Regarding claim 1 Yoeda discloses an electromagnet (See Figure 2 (90), (94)); an armature (See Figure 2 (88)) disposed adjacent to the electromagnetic; a fluid-containing chamber having: a first piston (See Figure 2 (74)) providing a first wall portion of the chamber; and a second piston (See Figure 2 (80)) providing a second wall portion of the chamber, the first wall portion having a greater surface area than the surface area of the second wall portion; and wherein the first piston (See Figure 2 (74)) is coupled to the armature (See Figure 2 (88)) and the second piston is coupled to a valve (See Figure 2 (66)).

Regarding claim 2 Yoeda discloses the valve is a valve of an internal combustion engine (See Abstract, Column 1 Lines 13-17).

Regarding claim 3 Yoeda discloses the chamber (See Figure 2 (84)) has therein motor oil for the engine.

Regarding claim 4 Yoeda discloses a pair of electromagnets (See Figure 2 (90), (94)); an armature (See Figure 2 (88)) disposed in a magnetic field produced by the pair of electromagnets; a fluid-containing chamber having: a first piston (See Figure 2 (74)) providing a first wall portion of the chamber; and a second piston (See Figure 2 (80)) providing a second wall portion of the chamber, the first wall portion having a greater surface area than the surface area of the second wall portion; and wherein the first piston (See Figure 2 (74)) is coupled to the armature and the second piston (See Figure 2 (80)) is coupled to a valve (See Figure 2 (66)); a pair of springs (See Figure 2 (82), (78)), a first (See Figure 2 (82)) one of the pair of springs is disposed to compress upon activation of a first one of the pair of electromagnets while a second one (See Figure 2 (78)) of such pair of springs is disposed to expand upon such activation of the first one of the pair of electromagnets, the first one (See Figure 2 (82)) of the springs being held in compression until deactivation of the first one of the electromagnets, the second one (See Figure 2 (78)) of the pair of springs being disposed to compress after deactivation of the first one (See Figure 2 (90)) of the electromagnets and resulting expansion of the first one of the pair of springs while the first one of such pair of springs is disposed to thereby expand, the second one of the springs being held in compression until deactivation of the second one (See Figure 2 (94)) of the electromagnets.

Regarding claim 5 Yoeda discloses including a valve (See Figure 2 (86)) disposed in the wall of the fluid-containing chamber for enabling such chamber to receive fluid when volume of such chamber is increased by activation of one (See Figure 2 (90)) of electromagnets to move one (See Figure 2 (74)) of the pistons in a first direction and to inhibit removal of such fluid from the chamber when volume of such chamber is decreased by activation of said one of the pistons in an opposite direction.

Regarding claim 6 Yoeda discloses a valve (See Figure 2 (86)) disposed in the wall of the fluid-containing chamber for enabling such chamber to receive fluid when volume of such chamber is increased by activation of one of electromagnets (See Figure 2 (90)) to move one of the pistons in a first direction and to inhibit removal of such fluid from the chamber when volume of such chamber is decreased by activation of said one of the pistons (See Figure 2 (74)) in an opposite direction.

Regarding claim 7 Yoeda discloses a second (See Figure 2 (86)) fluid-containing chamber providing a conduit for fluid therein to pass between an outer surface portion of the first (See Figure 2 (74)) piston and an outer surface portion of the second piston (See Figure 2 (80)) as the first and second pistons move in response to activation of the first (See Figure 2 (90)) and second (See Figure 2 (94)) ones of the pair of electromagnets.

Regarding claim 8 Yoeda discloses the fluid in the second chamber (See Figure 2 (86)) passes to the first-mentioned fluid-containing chamber through the valve.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hartke et al. (PN 6,371,064), Nishida et al. (PN 6,539,901) disclose similar valve actuators.

Any inquiry concerning this communication from the examiner should be directed to Examiner Jaime Corrigan whose Carlyle telephone number is (571) 272-4858. The examiner can normally be reached on Monday - Friday from 8:30 a.m. – 6:00 p.m. 2<sup>nd</sup> Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) –272-4859. The fax number for this group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 3748

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3700.

JC

Jaime Corrigan

*Jaime Corrigan*  
Patent Examiner

February 21, 2005

Art Unit 3748

*Thomas Denion*  
**THOMAS DENION**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 3700**